

M 6.8, 69km WSW of Constitucion, Chile

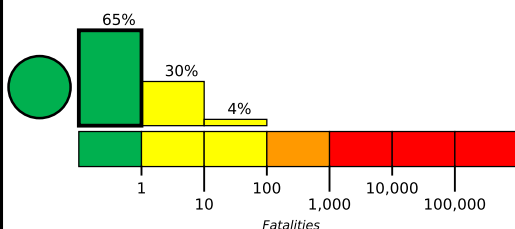
Origin Time: 2019-09-29 15:57:53 UTC (Sun 10:57:53 local)

Location: 35.4734° S 73.1624° W Depth: 11.0 km

FOR TSUNAMI INFORMATION, SEE: tsunami.gov

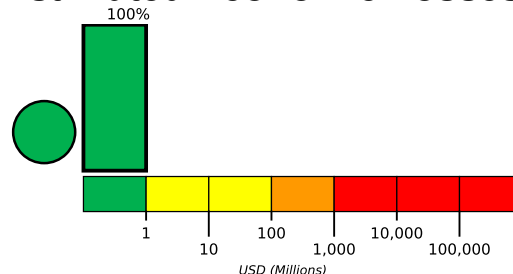
Created: 1 day, 0 hours after earthquake

Estimated Fatalities



Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.

Estimated Economic Losses

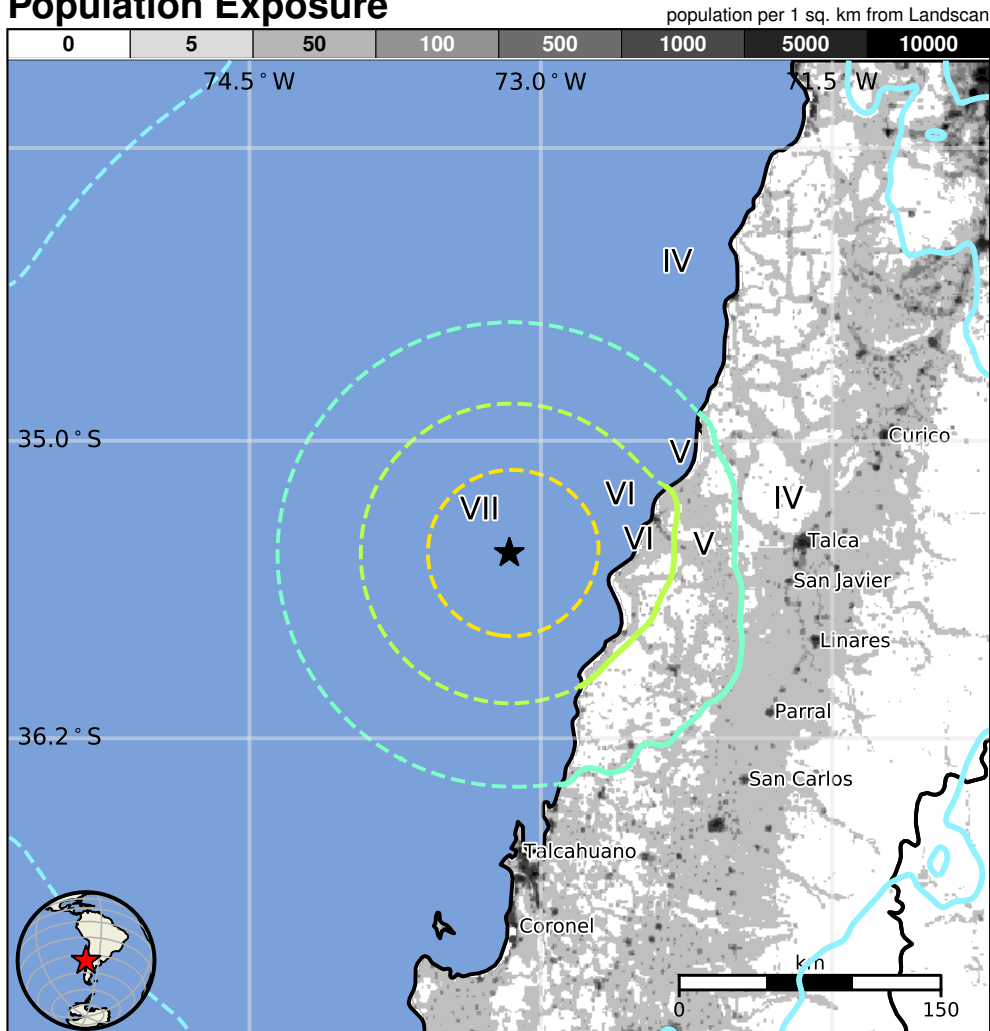


Estimated Population Exposed to Earthquake Shaking

| ESTIMATED POPULATION EXPOSURE (k=x1000) | | —* | 681k* | 5,823k* | 107k | 47k | 0 | 0 | 0 | 0 |
|---|-----------------------|----------|--------|---------|----------|----------|-------------|------------|----------|----------|
| ESTIMATED MODIFIED MERCALLI INTENSITY | | I | II-III | IV | V | VI | VII | VIII | IX | X+ |
| PERCEIVED SHAKING | | Not felt | Weak | Light | Moderate | Strong | Very Strong | Severe | Violent | Extreme |
| POTENTIAL DAMAGE | Resistant Structures | None | None | None | V. Light | Light | Moderate | Mod./Heavy | Heavy | V. Heavy |
| | Vulnerable Structures | None | None | None | Light | Moderate | Mod./Heavy | Heavy | V. Heavy | V. Heavy |

*Estimated exposure only includes population within the map area.

Population Exposure



Structures

Overall, the population in this region resides in structures that are resistant to earthquake shaking, though vulnerable structures exist. The predominant vulnerable building types are adobe block and rubble/field stone masonry construction.

Historical Earthquakes

| Date (UTC) | Dist. (km) | Mag. | Max MMI(#) | Shaking Deaths |
|------------|------------|------|-------------|----------------|
| 1971-07-09 | 376 | 7.8 | VIII(755k) | 83 |
| 1960-05-22 | 313 | 9.6 | IX(227k) | 0 |
| 1985-03-03 | 289 | 7.9 | VII(5,319k) | 177 |

Recent earthquakes in this area have caused secondary hazards such as liquefaction that might have contributed to losses.

Selected City Exposure

from GeoNames.org

| MMI | City | Population |
|-----|--------------|------------|
| VI | Constitucion | 38k |
| V | Cauquenes | 31k |
| IV | Concepcion | 215k |
| IV | Penco | 46k |
| IV | Parral | 27k |
| IV | Tome | 47k |
| IV | Talcahuano | 253k |
| IV | Chillan | 150k |
| IV | Talca | 197k |
| III | Rancagua | 213k |
| III | San Bernardo | 250k |

PAGER content is automatically generated, and only considers losses due to structural damage.

Limitations of input data, shaking estimates, and loss models may add uncertainty.

<https://earthquake.usgs.gov/earthquakes/eventpage/us70005nie#pager>

bold cities appear on map.

(k = x1000)

Event ID: us70005nie